Reply to: (785) 296-5277 FAX (785) 296-5509 Bureau of Water – Geology Section 1000 SW Jackson Street, Suite 420 Topeka, Kansas 66612-1367



## KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

# PROCEDURE FOR EMPLACEMENT OF APPROVED MATERIALS INTO A CAVERN

**Procedure #: UICLPG-18** 

(12/05)

#### Narrative:

Materials approved by the Kansas Department of Health and Environment (KDHE) may be placed into a specified underground hydrocarbon storage cavern for disposal. The operator must submit a plan to KDHE for review and approval prior to commencement of field activities.

#### Procedure:

The following procedure describes the plan criteria and reporting requirements for emplacement of approved materials into a cavern.

- 1. Provide the facility name, well identification, and well status for the well that will be utilized for the emplacement of the materials.
- 2. Name the company and/or subcontractors that will provide pumps, hoses and any fittings, and personnel that will supervise the transfer and emplacement of the approved materials into the cavern. Submit a surface schematic showing the dimensions of any steel tanks or lines, length and location of lines, location of valves and well casings, and the location any pumps utilized in the emplacement process.
- 3. Only materials approved by KDHE may be emplaced into the cavern. Provide route maps for transferring off-site materials.
- 4. Provide a wellhead surface schematic and a subsurface schematic for the emplacement well. Include the dimensions and casing seats for the well casings, and the footage to the top of the salt and cavern.
- 5. Describe the procedure for transferring the approved materials to the emplacement site. Include an estimate of the volume of material to be emplaced, a description of the slurry process, and measures for pressure control during the emplacement process.
- 6. Describe the procedures to prevent spillage or leakage from pumps, tanks, and lines.
- 7. Describe the response procedure for any spills that may result from pumps, tanks, or lines used in the transfer process.
- 8. Describe the pumping pressure. The pumping pressure must be less than the maximum pressure allowed (0.75 p.s.i. X depth in feet to the casing shoe).
- 9. Describe the process for removing any materials from the cavern casing after emplacement.
- 10. Document the number of loads, date and time of arrival, estimated amount, and other required information on the appropriate transfer form. Submit the On-Site Materials Transfer Form (Attachment A) if the source of emplacement materials is on-site. Submit the Off-site Materials Transfer Form (Attachment B) if the emplacement material source is off-site and materials will be transported to the facility property.
- 11. Provide a final report to KDHE within 30 days after the completion of the emplacement process. Include the appropriate transfer forms and total volume of material emplaced into the well.

## ON-SITE MATERIALS TRANSFER FORM

MATERIAL	C COLIDOE.							
MATERIALS SOURCE: Operator Name:								
Operator Address:								
Op	erator Address	•						
Co	ontact Phone Nu	ımbarı						
Mobile Phone Number:								
			a nita storag	e or frac tanks,	oto):			
Source of En	inpracement wi	ateriais (uriiiii	ig pits, storag	e of frac taliks,	eic.).			
Source Loca	otion: Sec:	Township:	Dange:	Fact ( ) or We	et ( )			
Source Loca	Source Location: Sec: Township: Range: East ( ) or West ( ) Feet from North ( ) or South ( ) line of Section							
	Feet from East ( ) or West ( ) line of Section							
County, Kansas								
Describe em	placement mat							
	- <b>r</b>							
DESTINAT	ION OF EMPI	LACEMENT N	MATERIAL:					
	orage cavern#							
	ocation: Section		p: Range:	East ( ) West	t()			
Load	Date	Arrival	Amount	Truck	Initial	Initial		
Number		Time		License #	Driver	Receiver		
	RT COMPANY	7:						
Address:								
Truck license number:								
Driver's Signature:								
Date:								
Time:								
Supervisor's Signature:								
Date:								
Time:								

# OFF-SITE MATERIALS TRANSFER FORM

MATERIALS SOURCE:					
Operator Name:					
Operator Address:					
Contact Phone Number:					
Mobile Phone Number:					
Source of Emplacement Materials (drilling pits, storage or frac tanks, etc.):					
Source Location: Sec: Township: Range: East ( ) or West ( )					
Feet from North ( ) or South ( ) line of Section					
Feet from East ( ) or West ( ) line of Section					
County, Kansas					
Describe emplacement material:					
Amount of emplacement material: Load #: Bbls: Cubic feet:					
Date of Transfer:					
DESTINATION OF EMPLACEMENT MATERIAL:					
Storage cavern #:					
Facility Name:					
Operator:					
Location: Section: Township: Range: East ( ) West ( )					
County:					
County.					
TRANSPORT COMPANY:					
Address:					
Truck license number:					
Supervisor's Signature at Source Location:					
Date:					
Time:					
Driver's Signature:					
Date:					
Time:					
Supervisor's Signature at Emplacement Location:					
Date:					
Time:					